

AMENDMENTS/CURRENT LISTING OF CLAIMS

Claims 1 – 66 (cancelled)

67. (Currently amended) An isolated antimicrobial peptide, consisting of an amino acid sequence of 13 to 74 amino acids with a 7 amino acid core sequence: aa1-aa2-aa3-aa4-aa5-aa6-aa7, wherein aa1 is the amino-terminus of the core sequence and is selected from the group consisting of alanine, lysine and glycine; aa2 is selected from the group consisting of leucine and arginine; aa3 is tyrosine; aa4 and aa5 are selected from the group consisting of lysine, arginine, and histidine; and one of aa6 and aa7 is selected from the group consisting of phenylalanine, tryptophan and tyrosine, such that when aa6 is phenylalanine aa7 is selected from the group consisting of lysine, arginine and histidine, when aa6 is tryptophan aa7 is lysine, and when aa7 is phenylalanine aa6 is leucine; and a modified amino acids of the amino acids in said antimicrobial peptide with the amino acids in said 7 amino acid core sequence modified and retaining that ~~retain~~ antimicrobial activity, wherein said modified amino acids are selected from the group consisting of N-epsilon-monomethyl-lysine, beta branched amino acids, N-methyl amino acids, alpha, beta-dehydro amino acids, and fluorinated amino acids.

68. (Previously presented) The antimicrobial peptide according to claim 67, wherein aa4 and aa5 are selected from the group consisting of lysine and arginine.

69. (Previously presented) The antimicrobial peptide according to claim 67 comprising the amino acid sequence as set forth in SEQ ID NO:3.

70. (Original) The antimicrobial peptide according to claim 67 comprising the amino acid sequence as set forth in SEQ ID NO:4.

71. (Original) The antimicrobial peptide according to claim 67 comprising the amino acid sequence as set forth in SEQ ID NO:5.

72. (Original) The antimicrobial peptide according to claim 67 comprising the amino acid sequence as set forth in SEQ ID NO:6.

73. (Original) The antimicrobial peptide according to claim 67 comprising the amino acid sequence as set forth in SEQ ID NO:7.

74. (Original) The antimicrobial peptide according to claim 67 comprising the amino acid sequence as set forth in SEQ ID NO:8.

75. (Previously presented) The antimicrobial peptide according to claim 67 comprising the amino acid sequence as set forth in SEQ ID NO:9.

76. (Original) The antimicrobial peptide according to claim 67 comprising the amino acid sequence as set forth in SEQ ID NO:10.

77. (Original) The antimicrobial peptide according to claim 67 comprising the amino acid sequence as set forth in SEQ ID NO:11.

78. (Original) The antimicrobial peptide according to claim 67 comprising the amino acid sequence as set forth in SEQ ID NO:12.

79. (Original) The antimicrobial peptide according to claim 67 comprising the amino acid sequence as set forth in SEQ ID NO:13.

80. (Previously presented) The antimicrobial peptide according to claim 67, wherein said modified amino acids comprise N-epsilon-monomethyl-lysine.

81. (Previously presented) The antimicrobial peptide according to claim 67, wherein said modified amino acids comprise beta branched amino acids.

82. (Previously presented) The antimicrobial peptide according to claim 67, wherein said modified amino acids comprise N-methyl amino acids.

83. (Previously presented) The antimicrobial peptide according to claim 67, wherein said modified amino acids comprise alpha, beta-dehydro amino acids.

84. Cancelled.

85. (Previously presented) The antimicrobial peptide according to claim 67, wherein said modified amino acids comprise fluorinated amino acids.

86. Cancelled.